

Fig. 1

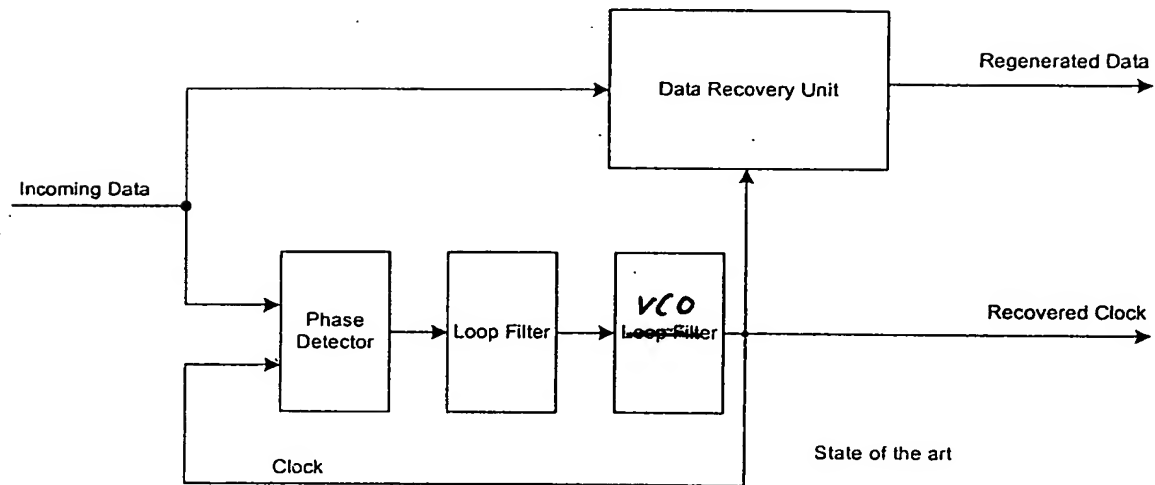


Fig. 2

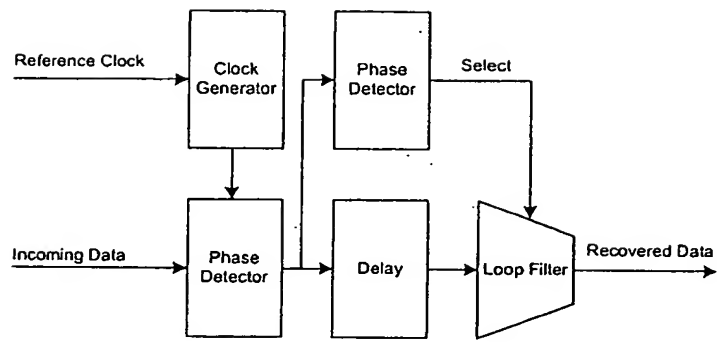


Fig. 3a

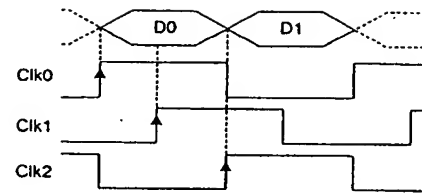


Fig. 3b

Fig. 3

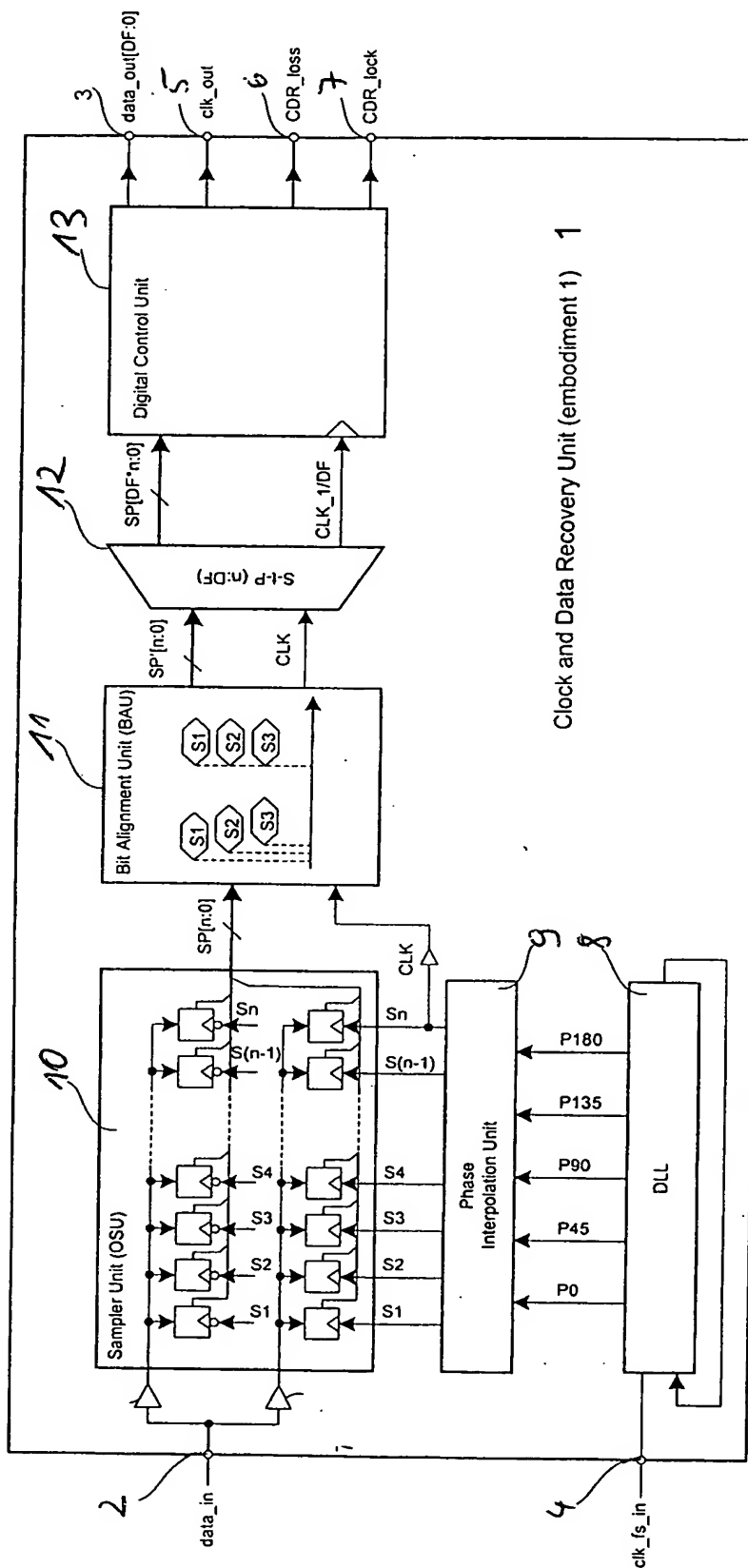


Fig. 4

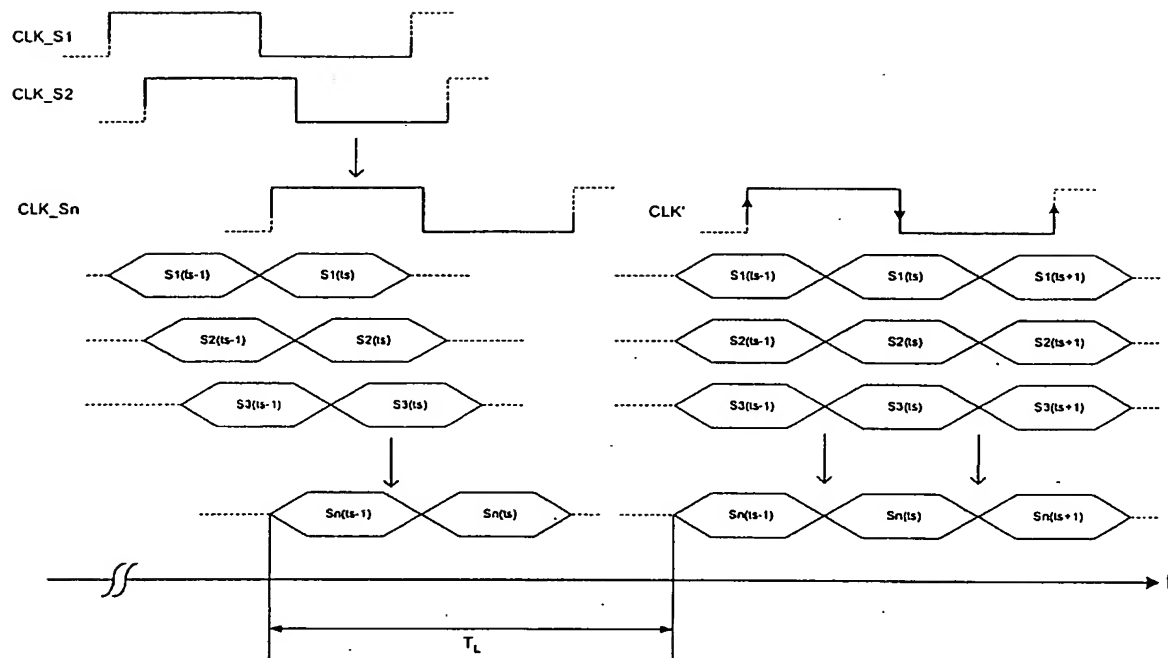


Fig. 5

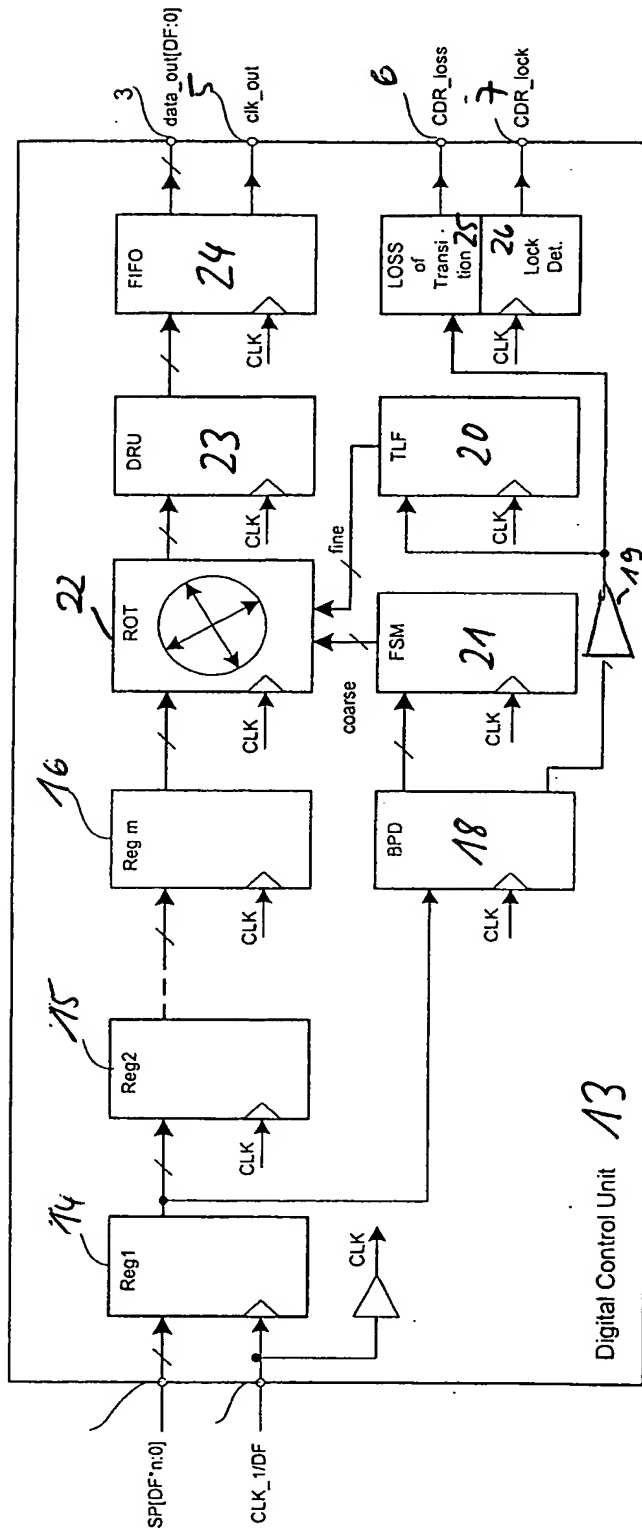


Fig. 6

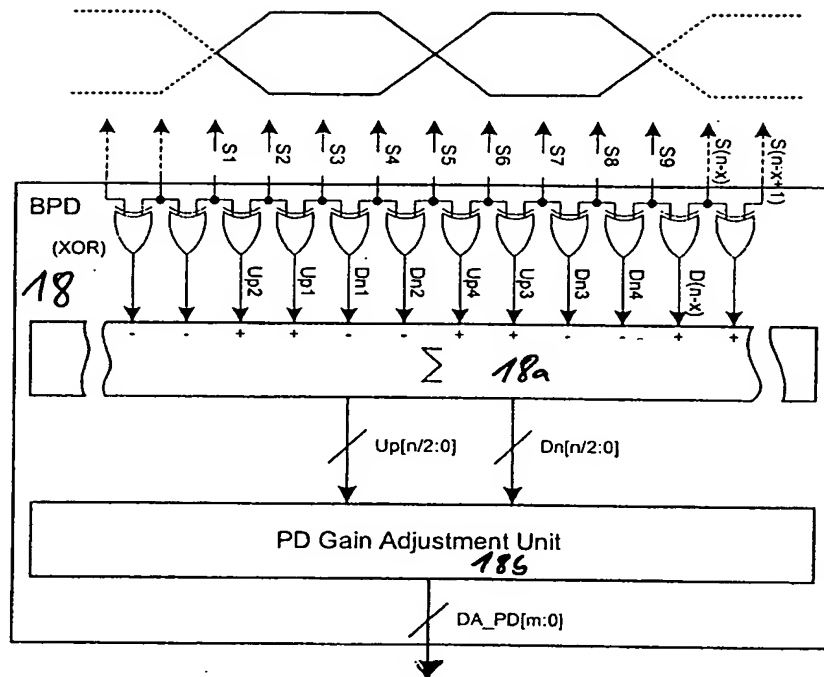


Fig. 7a

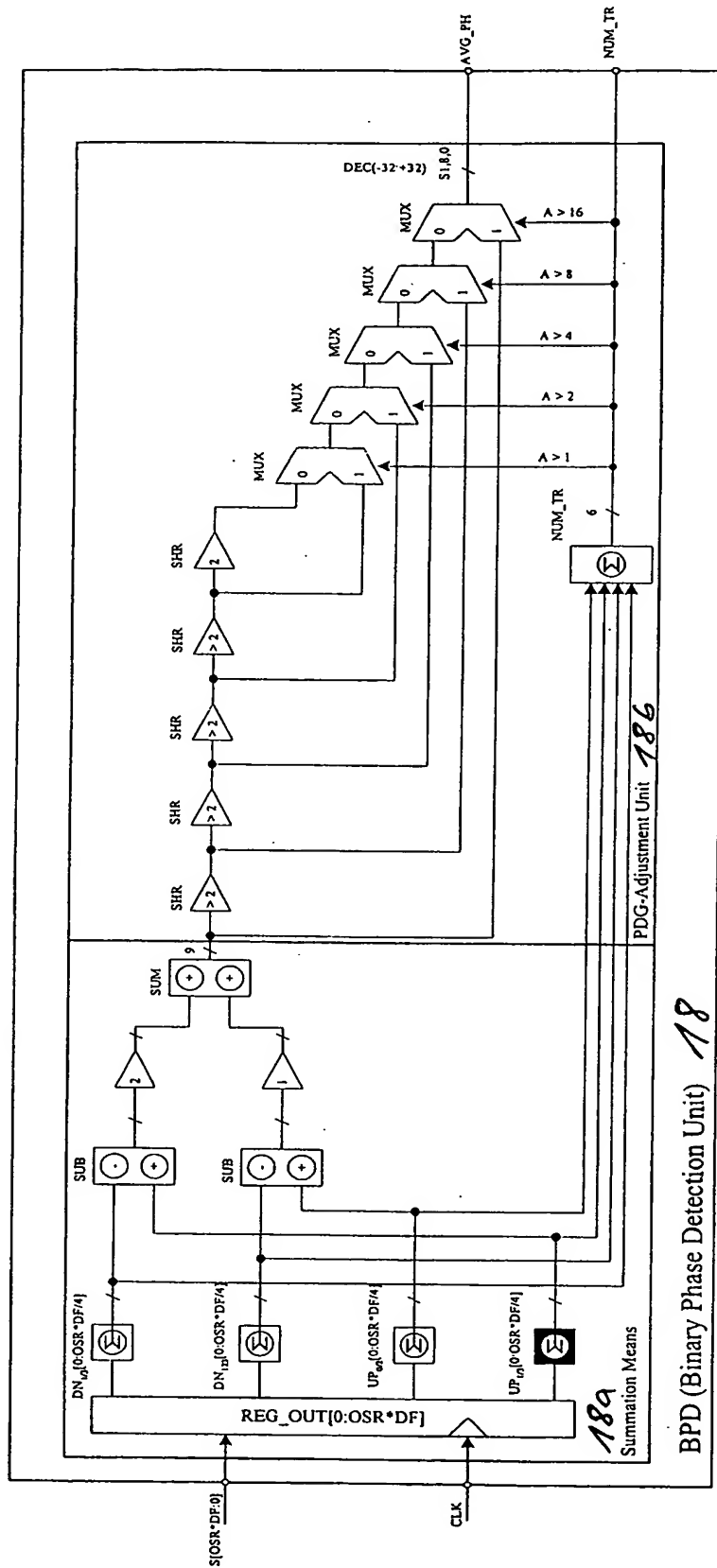
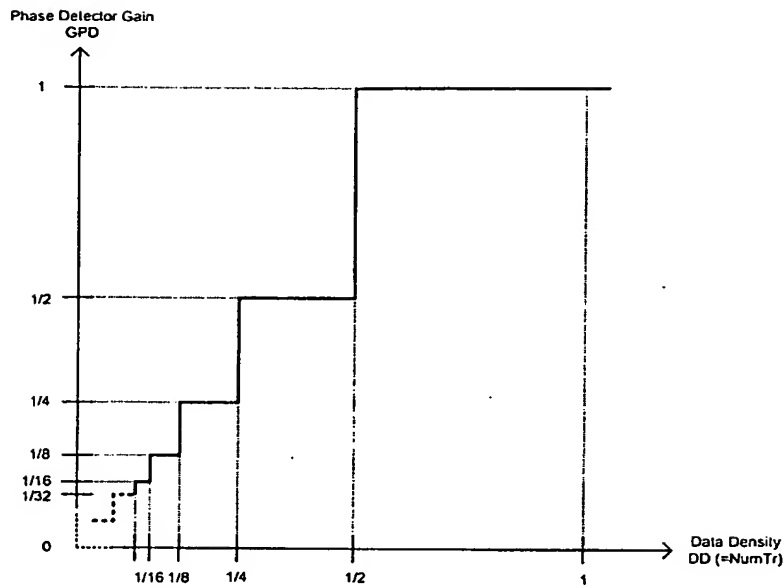


Fig. 7b

BPD (Binary Phase Detection Unit) 18



*State of
the art*

Fig. 8a

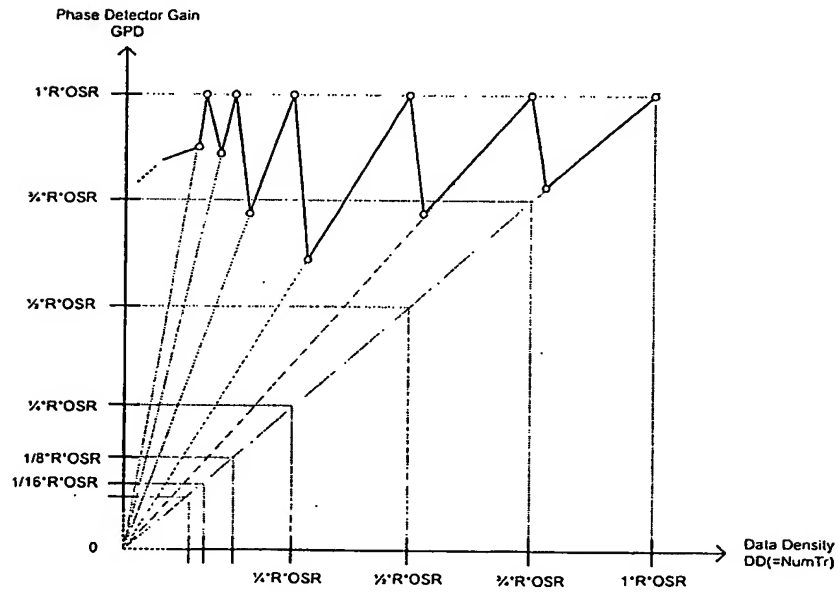


Fig. 8b

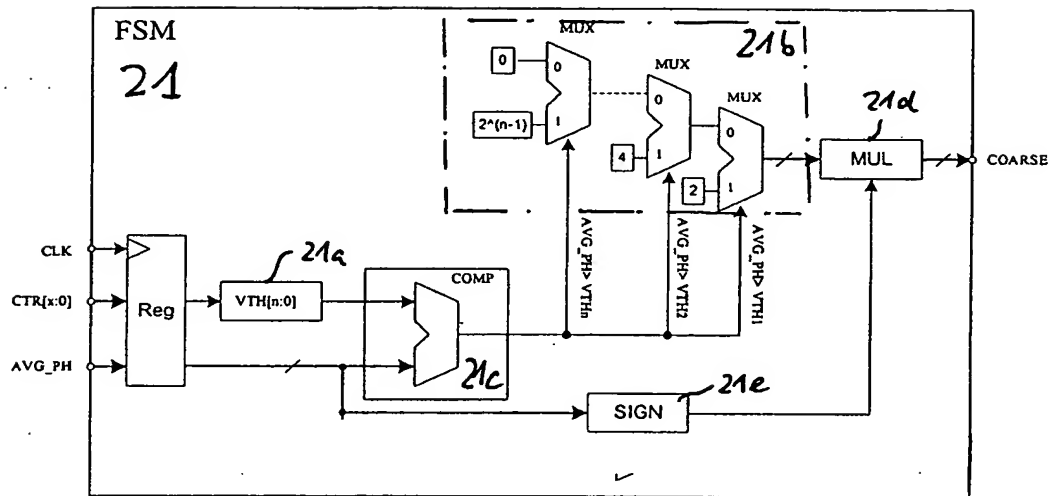


Fig. 9

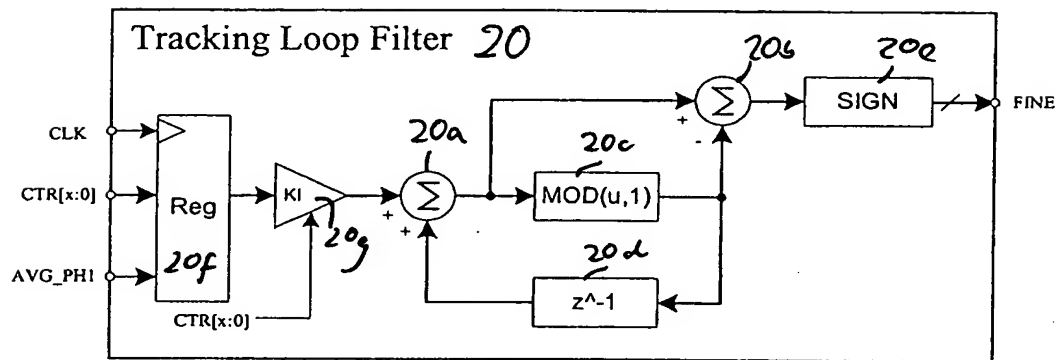


Fig. 10

Master
Calculation
Unit

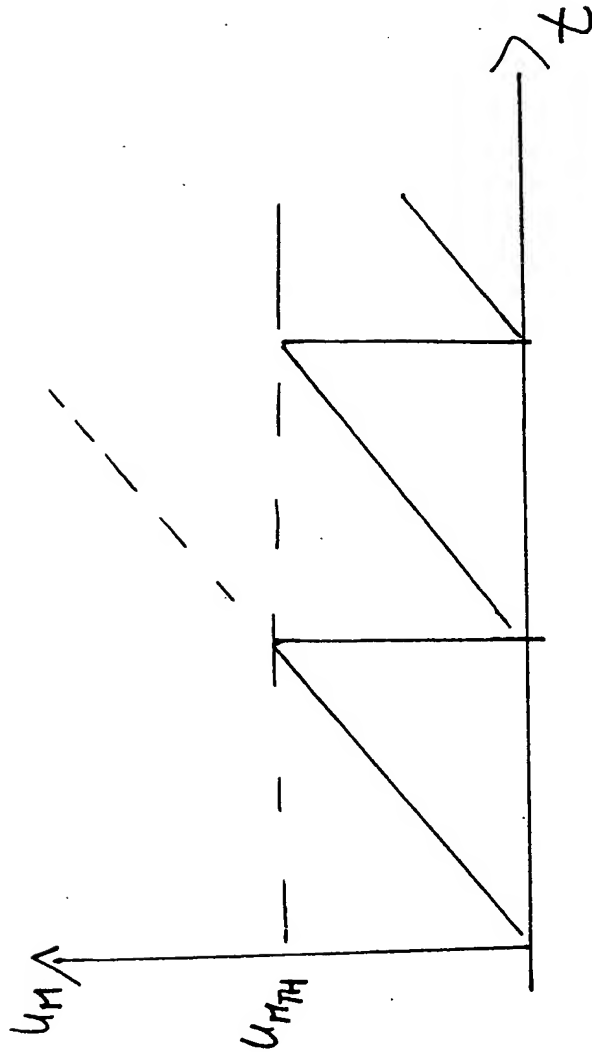


Fig 11

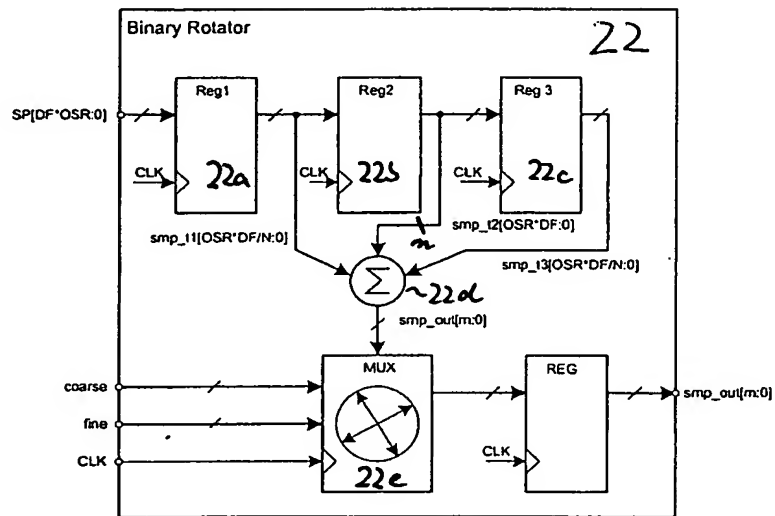
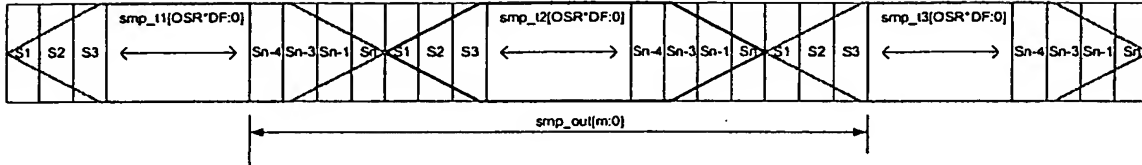


Fig. 12

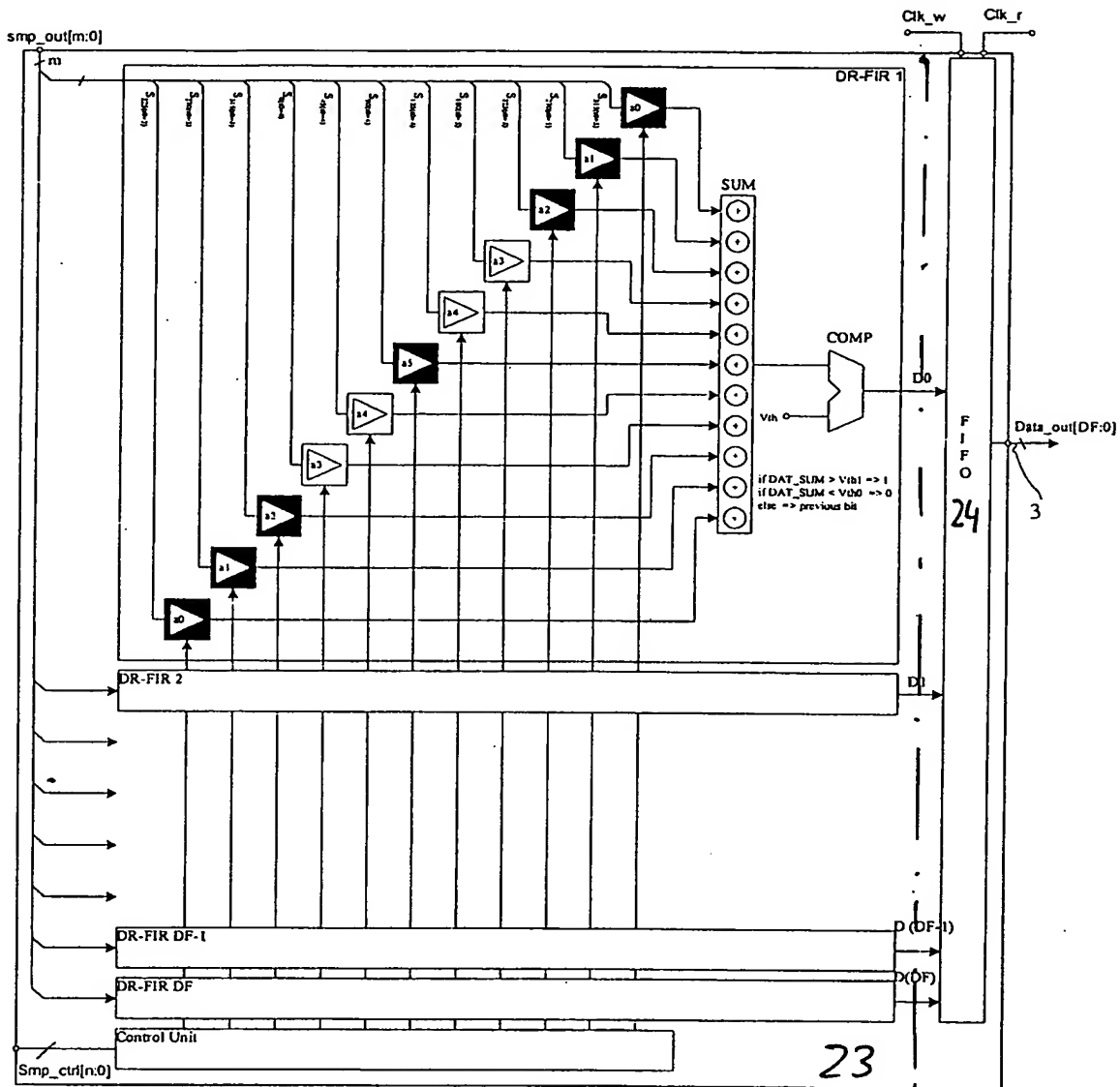


Fig. 13

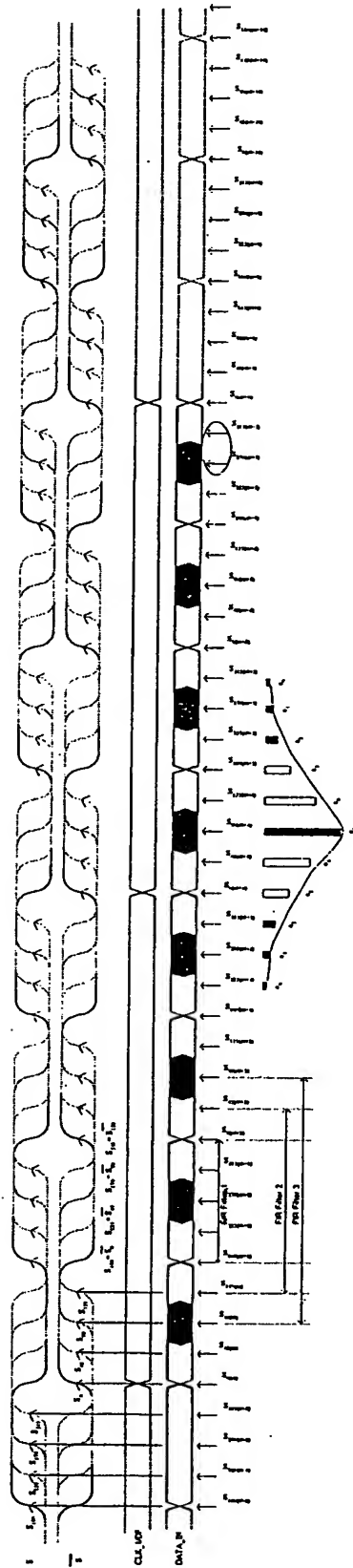


Fig. 14

$$H_m(z) = a_0 + a_1 \cdot z^{-1} + a_2 \cdot z^{-2} + a_3 \cdot z^{-3} + a_4 \cdot z^{-4} + a_5 \cdot z^{-5} \dots$$

$$g(t) = K \cdot \frac{\sin \omega_c(t-t_0)}{\pi(t-t_0)}$$

$$P_s = \sum_{k=0}^{N-1} g(t = t_0 + k) S_k$$

Transfer Function

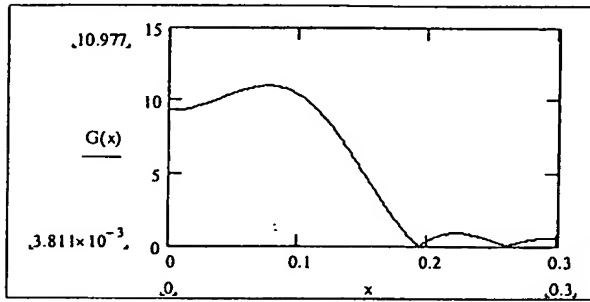


Fig. 15a

Impulse Response

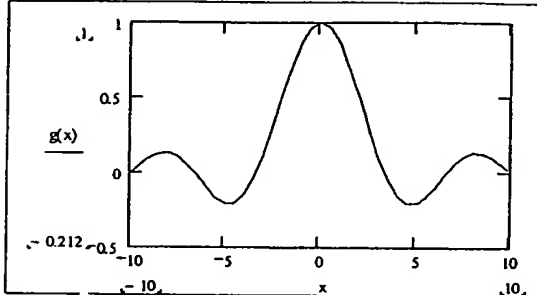


Fig. 15b

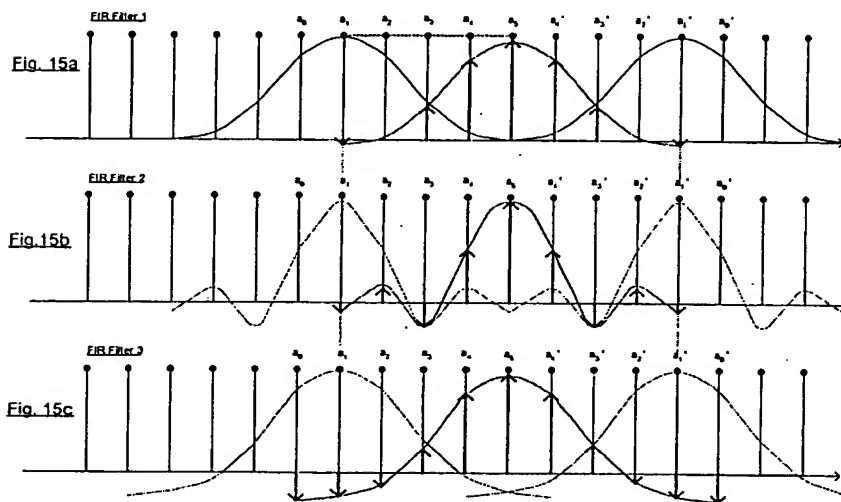


Fig. 15c

Filter Coefficients:		
Filter A	Filter B	Filter C
0	0	-18
-1	-6	-14
0	8	-5
20	-13	17
50	40	50
64	64	64
50	40	50
20	-13	19
0	8	-5
-1	-6	-14
0	0	-18

Fig. 15

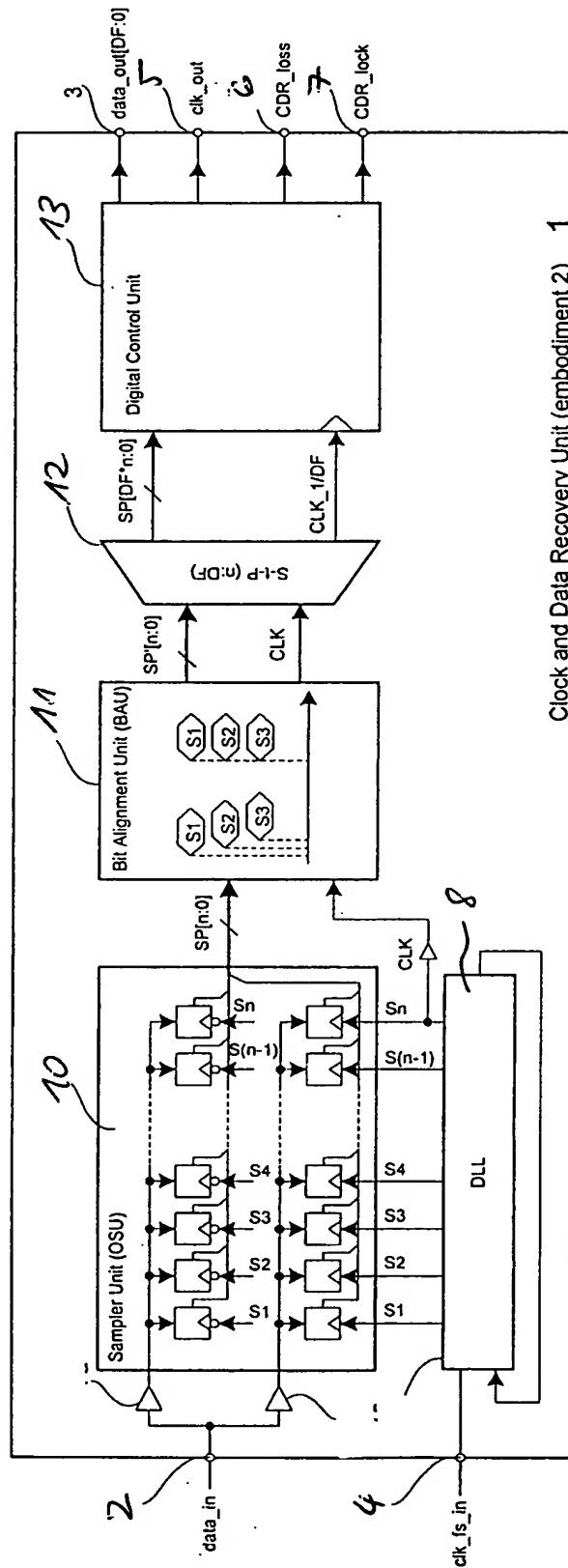


Fig. 1b

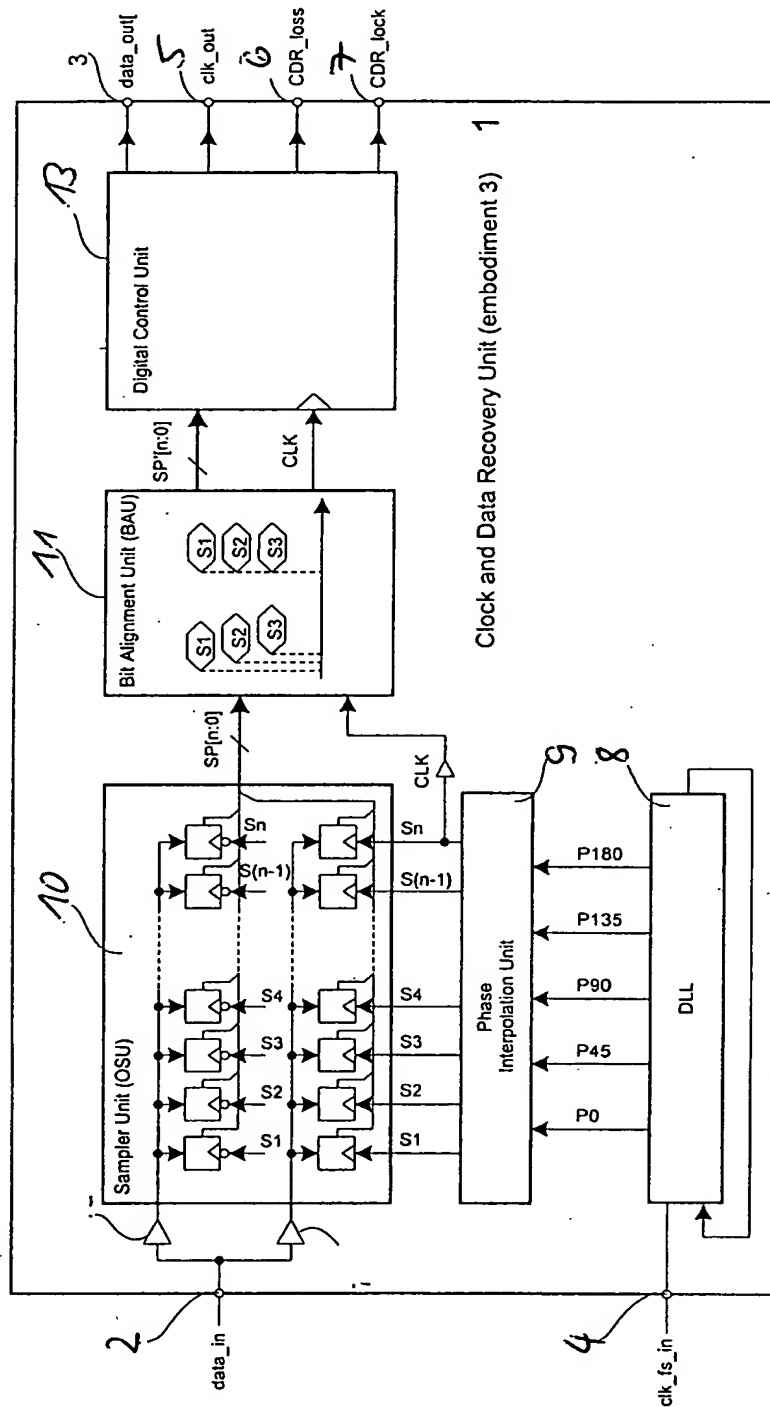


Fig. 17